

Report to the Secretary of Defense

ACQUISITION REFORM

Comparison of Army's Commercial Helicopter Buy and Private-Sector Buys

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National Security and
International Affairs Division

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March 17, 1995

The Honorable William J. Perry
The Secretary of Defense

Dear Mr. Secretary:

The Congress, the executive branch's National Performance Review, and the Department of Defense (DOD) have emphasized the need for reforming the federal government's acquisition processes. The federal acquisition system has been described as complex, unwieldy, and in need of comprehensive reform. One key aspect of the current reforms is to use commercial procurement practices to buy commercial products.

Army officials have cited the acquisition of the Army's New Training Helicopter (NTH) as an early example of success in streamlining its acquisition process to buy a commercial item. In this report, as a "case study," we (1) compare this Army acquisition with acquisitions by two of the largest private sector purchasers of similar helicopters to determine key differences between these buys and the reasons for such differences, (2) identify successes the Army achieved in streamlining the NTH acquisition, and (3) discuss potential improvements that could be achieved from acquisition reform efforts. Our comparison is not intended to suggest that the identified private sector processes would be appropriate for a government procurement. However, as the government moves to greater use of commercial practices to procure commercial items, a comparative analysis can be a helpful tool in gauging status and progress.

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Results in Brief

The Army's acquisition of the NTH was vastly different than private sector companies' acquisition of similar helicopters. Specifically, the Army's acquisition took longer, involved more people, and generated significantly more paperwork.

Key reasons for these differences were that the Army's procurement included

- the need to comply with a myriad of laws and regulations;
- more extensive and less flexible system requirements; and
- numerous documentation requirements for the proposal and award process, including contingencies such as bid protests.

Nevertheless, in procuring the NTH, the Army streamlined its acquisition process somewhat and used more commercial-type practices. For example, it adapted a commercial helicopter for the NTH rather than pursuing a lengthy development program, deleted a number of data requests and contract clauses from the request for proposals (RFP), and used commercial standards in lieu of military specifications and standards. In addition, the Army requested fewer program evaluations and other documents than are normally required in the acquisition process—these include functional areas such as testing, safety, and logistics.

We believe the Army could have made further improvements through quicker approval of deviations and waivers and additional reductions in contractors' paperwork requirements. However, to significantly reduce the differences between the Army's and commercial sector's acquisitions, further reforms, such as those proposed by the Secretary of Defense and called for in the recently enacted Federal Acquisition Streamlining Act of 1994, need to be implemented. For example, the act should significantly expand and simplify the procurement of commercial items because it stipulates a preference for such items and eliminates the applicability of certain laws and clauses previously required. We believe, therefore, that the Army's NTH acquisition could be used as a baseline against which further improvements that might result from acquisition reform initiatives could be measured. However, for combat or other missions that can only be satisfied by unique development efforts, the NTH would likely not provide an appropriate baseline.

Background

The DOD acquisition system has been described as a complex web of laws, regulations, and policies adopted to, among other things, ensure standardized treatment of contractors; prevent fraud, waste, and abuse; and further socioeconomic objectives. This complex situation has been cited by DOD officials as adding to (1) the time to procure commercial items from the private sector and (2) the costs of such items in terms of administrative burdens placed upon both DOD and its suppliers. Several efforts are underway to change the way DOD buys commercial items. One approach is to streamline or eliminate as many government-unique requirements in the procurement of commercial items as possible. This is what the Army stated was done in the procurement of its NTH.

Although the NTH acquisition began several years before the current reform efforts, the Army's objective was to streamline the cost of entry-level

rotary wing training by using a “not-business-as-usual” approach to the acquisition process. To reduce the cost of this training without degrading its effectiveness, the Army sought to replace the UH-1 Huey with a commercial helicopter that had lower operating costs. The Huey, although more effective than the system it replaced, was also more expensive to operate and maintain. A 1989 study estimated that expenses could be reduced by about \$40 million a year by using a new training helicopter rather than the Huey. Thus, the Army incurred extra cost every year until the NTH replaced the Huey.

The Army awarded a contract in March 1993 to Bell Helicopter, Textron Incorporated, for delivery of 157 NTHs and 12 cockpit trainers with deliveries beginning in October 1993. The contract price was about \$85 million. The Army began training with the aircraft—a commercial nondevelopmental item¹ that was certified by the Federal Aviation Administration (FAA)—in April 1994. The NTH, as shown in figure 1, is now being used for all phases of the Army’s entry level rotary wing training.

Figure 1: The Army’s New Training Helicopter



¹DOD regulations define a nondevelopmental item to include, among other things, commercial items and commercial items modified for military use. In 1994, the Federal Acquisition Streamlining Act defined commercial items to include items available to and used by the general public that incorporate minor modifications to meet federal requirements.

Our comparison of the Army's NTH and the private sector purchasers' processes is limited in a number of respects. For example, the Army NTH buy consisted of 157 helicopters while the private purchasers stated that, for them, a large buy would be about 10 aircraft. However, since DOD is moving toward adapting the processes of world class customers in buying commercial products and the Army has identified the NTH as a successful commercial procurement, we believe these commercial purchasers' processes can serve as an indicator of progress in moving away from government-unique terms, conditions, and practices. Appendix I details the acquisition process for both the Army NTH buy and the private sector purchasers included in our work.

Army's NTH Buy Differs From Private Sector Helicopter Buys

Differences we noted in the Army's NTH buy and acquisitions by the private sector purchasers we spoke with appear quite significant. One main difference is that the Army's NTH acquisition took more time. From the time the need was identified in 1986 to initial aircraft delivery in 1993 was 7 years. Of this time, it took about 23 months from the time Congress approved funding for the purchase in November 1991 to initial delivery in October 1993. In comparison, the major private sector purchasers of helicopters we spoke with stated that their acquisitions of similar helicopters normally take about 3 months from the time a customer identifies its need until aircraft delivery. This time frame, according to these purchasers, does not normally include the time it takes the customers to develop their requirements and obtain funding for the aircraft. Whether the 23-month period or some other period is most appropriate as a comparison with the time required for private sector buys is debatable; however, DOD and service officials acknowledged that the time to acquire their aircraft was a considerably longer period than that required for private sector acquisitions.

Additionally, the Army involved several hundred government personnel in the acquisition process while the private sector purchasers involved just five to seven people. However, the government personnel's involvement with the acquisition varied significantly from full-time participation to attending a few meetings. According to Army representatives, a core group of about 50 people was significantly involved in the program management and the evaluation and selection of the NTH contractor.

We also noted that during the Army's NTH acquisition process, contractors and government officials were required to provide large quantities of data. For example, the contractors were required to respond to the RFP with

seven separately bound volumes, which included an overall executive summary for their proposal in one volume, their technical proposal approach in another, and their cost proposal in another. Furthermore, numerous copies of each volume were required—specifically, 50 copies of the executive summary and from 10 to 20 copies of each of the remaining 6 volumes were required. One contractor's representative stated that its proposal contained 62 pages of life-cycle cost data, including such information as the parts requirements per month, compared to 1 to 2 pages of cost data normally required in a commercial contract. A representative for another contractor that responded to the RFP stated that a truck was rented to deliver the proposal because the Army required so many copies. The private sector purchasers we talked with did not require this type or quantity of data. We were told that they only asked for a few pages of data.

Army officials also noted that they were required to submit a number of program documents, some of which they believed added no value because a commercial aircraft was being bought. These included a Test and Evaluation Master Plan and a Safety and Health Data Sheet. Similar documentation was not required in private sector purchases of helicopters.

Reasons for Differences

Several reasons account for the key differences between Army and private sector procurement. These include the Army's (1) compliance with numerous laws and regulations, (2) more extensive and less flexible system requirements, and (3) need for documentation throughout the proposal and award process. We were told these were not major factors in private sector procurements.

Laws and Regulations

Government procurements are subject to various statutory and regulatory provisions that place requirements on government personnel and can require contractors to revise or modify their commercial practices. Such statutory provisions include (1) competition requirements that were enacted to obtain low prices, avoid favoritism, and ensure offerers a fair chance when competing for government contracts; (2) socio-economic requirements to promote desirable social objectives; and (3) audit requirements developed to ensure the government obtains what it pays for. Audit requirements include the Truth in Negotiation Act's (TINA) requirement for contractors to submit cost or pricing data. Regulatory guidance includes the Federal Acquisition Regulation (FAR) and DOD's acquisition and budget guidances—DOD Directive 5000.1—Defense

Acquisition, and Directive 7045.14—The Planning, Programming, and Budgeting System.

Government and contractor officials have often identified such government-unique requirements as impediments to commercial buys. In fact, one contractor noted that the possibility that the NTH procurement could have involved TINA requirements almost resulted in his company not submitting a proposal. Although the planned competitive procurement was not subject to TINA requirements, the contractor was concerned that changes in the procurement process or modifications to the NTH contract after award could in some way involve certified cost or pricing data. In fact, an August 1992 draft RFP stated that although the contractor may not be required to submit a signed certificate, "the contracting officer, however, reserves the right to require the certification if it is determined, prior to award, that adequate competition does not exist or if the possibility of overpricing exists." This could have opened the concerned company's books as well as its subcontractors' books to government inspections. An Army contracting representative commented that it does not make sense for the government, when seeking the benefits of buying commercial products, to place such requirements on contractors whose products have already been produced for the commercial market.

Concerning regulatory provisions, Directive 5000.1, for example, defines a disciplined approach to the integration of DOD's requirements, acquisition, and budgeting processes. Generally, a DOD acquisition program is (1) initiated in response to a validated military need that becomes an approved requirement, (2) prioritized and must compete for funds in the DOD Planning, Programming, and Budgeting System, and (3) further prioritized and must vie for funds during the congressional authorization and appropriation process.

This process of prioritizing and competing for funds frequently results in changes and causes funding uncertainties. In the case of the NTH, funding uncertainties related to the budget and appropriation process and the subsequent change in its acquisition strategy significantly increased procurement time. Specifically, when the need for a new training helicopter was recognized in 1986, the Army gave other systems a higher priority for scarce procurement funds than the new trainer. As a result, the Army decided to use operations and maintenance funds to lease the aircraft and in 1990 received congressional approval to do so. Congress subsequently decided it was more beneficial to buy the aircraft and in November 1991, provided \$23.5 million for the NTH initial procurement.

The commercial purchasers that we spoke with acknowledged that they were not subject to such legislative and regulatory constraints.

More Extensive and Less Flexible Requirements

DOD's traditional acquisition process is requirements driven; it begins with an extensive identification of operational and performance requirements derived from a variety of sources including the intended users (pilots, maintenance personnel, and trainers). The initial requirements list is subjected to scrutiny and compared to, but not limited by, what is available in the commercial market. For the NTH, the Army specified 83 of its requirements as critical, but several of these, such as a third seat, crash-worthy fuel cells, and crash-worthy seats, were not available on any potential competitor's aircraft. Army representatives said they specified 83 critical requirements because FAA certification assured only basic requirements and in an area such as aircraft instrumentation NTH students must have a working knowledge of many more instruments than an FAA certification required. They also stated that they had to be specific in their requirements to avoid ambiguity.

In contrast, the two private sector purchasers said they were limited to commercially available capability and would normally define only a few requirements as critical. These representatives said that private sector buyers define their requirements but may choose an item that provides less. They further stated that, in contrast, the government requires its contractors to meet stated requirements in an RFP or run the risk of being found unacceptable. In some instances, they stated that the government also required competing contractors to identify items capable of exceeding government-defined requirements. For example, the RFP for the NTH states that failure to achieve any critical requirements will result in contractors being eliminated and also asked contractors to highlight any requirements that have been exceeded and may result in training and safety benefits or cost savings. An Army official said that such information was needed in the NTH "best value" determination to properly assess and value those items that exceeded the stated minimum requirements.

Documentation Related to Proposal and Award Process

The government's proposal and award process has been characterized as a lengthy series of paperwork hurdles for both the contractor in trying to be responsive to RFPs and for the government to be prepared for contingencies such as bid protests. This process can substantially lengthen the procurement process. Also if the process is not carried out properly, a bid protest can ultimately negate the contract award.

The Army was required to (1) provide a 15-day notice to companies before releasing RFPs and (2) allow 30 days for such companies to respond. Additionally, contractors who responded to this RFP, as discussed previously, had to provide numerous copies of separate volumes of information. Army officials that were involved with the NTH buy stated that much of the documentation was required so the government could evaluate the contractors' claims about their helicopter's performance. For example, contractor claims about life-cycle costs and performance characteristics had to be substantiated by various individuals within the acquisition process, and as a result, numerous copies were required. Again, the private purchasers noted that they did not make such data requests. We were told that they only ask for a few pages of data.

Regarding bid protests, FAR Subpart 33-1 provides procedures to follow should contract awards be protested to the agency, the General Services Board of Contract Appeals (for automated data processing acquisitions), or our office. Private sector purchasers, however, do not normally encounter such protests. Army representatives told us that much of the documentation they requested in the RFP and prepared on their own was done in case of a bid protest. They stated that since the NTH buy was a streamlined procurement process, they wanted to ensure that a clear audit trail documented the actions taken and the reasons why.

A small team was informally formed to participate in meetings with the offerers and to assist in the review and revision of contract documentation so that these would be written in a clear, concise, and unambiguous manner. An Army representative told us that when one of the four competitors did protest the NTH award to our office,² the documentation that had been gathered was essential in showing what happened during the NTH competition and was instrumental in defending the Army NTH procurement actions and resolving the protest in favor of the Army.

Army Streamlined Acquisition, but Additional Improvements Were Possible

Much of the Army's streamlining can be attributed to the fact that it opted for a commercial helicopter instead of pursuing a development program. A development program would have added substantial time and cost to the acquisition. In addition, by selecting a commercial aircraft, the Army was able to test each offerer's aircraft using the Army's operating procedures, methods, and personnel. All of this was done at the manufacturer's expense and allowed the Army to avoid an expensive testing program. Further successes identified by Army officials include: (1) reducing some

²Enstrom Helicopter Corp., B-253014, Aug. 13, 1993, 93-2 CPD 189.

system requirements to make it easier for some contractors to compete; (2) deleting some unnecessary data requests, contract clauses, and specifications from the NTH RFP; and (3) preparing fewer program evaluations and related documents. Although progress was made in these areas, further improvements were possible.

Army Test Program Avoided, but Manufacturers Incurred Significant Costs

Army officials noted that, in pursuing an FAA-certified aircraft, they saved money and reaped many benefits by performing a Training Effectiveness User Evaluation (TEUE) on the manufacturer's aircraft instead of conducting an expensive test program. The TEUE, according to these officials, provided a means for the Army to test the NTH and see if it would do the intended mission using the actual operating procedures, methods, and personnel. This test was accomplished at the manufacturer's expense and the aircraft remained the manufacturer's responsibility. While this test may have been a significant cost benefit for the Army, some representatives of the manufacturers told us that the TEUE was expensive for them. One such official told us that, because of the costs relative to the TEUE, his company would not participate in an effort like this again.

System Requirements Reduced, but Further Improvements May Have Been Possible

Army officials stated that the procurement package used in the NTH buy incorporated flexibility regarding what was an acceptable requirement and, as a result, some system requirements were reduced. Specifically, they stated that classifying their requirements as critical and noncritical allowed the acceptance of less than specified needs for noncritical requirements. Based on its analysis of comments received from competitors, the Army reduced several requirements, including

- airspeed from 100 to 90 knots,
- a hover altitude from 4,000 feet density to 2,300 feet density,
- fuel capacity from 3-1/2 hours to 2-1/2 hours, and
- airframe crash-worthy limits from 26-feet-per-second to a limit open to discussion based on contractor data.

An Army representative said that the reductions in these requirements made it easier for contractors to compete. In fact, one contractor avoided elimination from competition when the airspeed requirement was lowered from 100 to 90 knots.

Although some requirements were reduced, contractors who responded to the NTH solicitation noted that further Army concessions would have made

it less burdensome in terms of people needed and paperwork required for them to develop special Army-unique items. While requirements were separated into critical and noncritical, contractors were still required to respond to each. Furthermore, as previously noted, 83 requirements were classified as critical. One requirement that contractors believed could have been reduced was the "three seat" cockpit configuration whereby, in addition to the instructor and student pilot, a second student in the aircraft must have an unobstructed view of the instruments. Contractors stated that this was the most difficult and costly requirement for them to meet. Army representatives, however, stated that the cockpit configuration was a critical requirement that was needed to save time and money. They noted that because a second student was being exposed to and trained in the cockpit environment and could interact with the instructor and other student pilot, training time should be reduced.

Contractor Workload Reduced, but More Is Needed

The Army took several actions to streamline the acquisition of the NTH and ease requirements on potential contractors. The RFP, for example, was shortened from an initial draft of 330 pages to a final version of about 100 pages. Army representatives said they eliminated unnecessary data requirements, contract clauses, and references to military specifications. For instance, an Army representative stated that 21 of 27 proposed data items cited in the original RFP were unneeded and were subsequently removed. The data demand for engineering change proposals, for example, was removed from the RFP because the contractor rather than the Army had configuration management responsibility. This data demand would have required (1) the contractor to prepare engineering change proposal documents, (2) Army engineers to evaluate and approve them, and (3) the contractor to wait until funding was made available before proceeding with the engineering changes. Further, the contractor would have had to submit 28 copies of each change proposal for the Army to evaluate and process.

The Army also eliminated about 98 contract clauses that were identified by either the Army or contractors as being unneeded. As a result, the final RFP referred to only 64 separate contract clauses, which are listed in appendix II, and included the full text of 8 other clauses.

Additionally, in purchasing an FAA-certified aircraft, the Army relieved contractors of the cost of complying with extensive military specifications and standards. Furthermore, other specifications and standards were eliminated during the RFP review process. For example, the Army

eliminated Military Specification MIL-Q-9858A, "Quality Program Requirements," from the final RFP since quality control processes, although less onerous, were already imposed under the FAA certification. DOD and contractor officials have often said that MIL-Q-9858A causes extensive government oversight and additional contractor cost in assuring compliance with various provisions for quality control such as maintaining detailed records of tests and inspections taken in response to test deviations, scrapped material, and process trends. Army officials told us that this specification was not required for commercial aircraft but could have been imposed in the NTH contract. Accordingly, compliance with this specification could have added a substantial burden, especially on contractors who did not do business with the government and did not already have a system that met this requirement.

Despite the above reductions, the government still required a multitude of data from offerers. This included the volumes of data in response to the RFP and various details not typically provided to commercial customers such as technical manuals and data about technical support. According to the contractors, these requirements create a significant paperwork burden because they must prepare and submit the documents to be considered for contract award. A number of them stated that they spent millions of dollars in preparing proposals and competing for the NTH contract. In commenting on these data requirements, Army officials said that such data could be justified by the significant differences between the nature of Army operations and the private sector and by differences in the number of aircraft bought.

Fewer Assessments and Program Evaluations, but Waivers and Deviations Took Too Long

In addition to easing the paperwork burden on contractors, the Army was able to streamline the acquisition process by waiving some reports, plans and evaluation requirements. Some Army NTH representatives said the waived documents were non-value-added because the NTH was an FAA-certified aircraft with no combat mission. Waived reports include the operational test and evaluation report that would have required time, manpower, and other Army assets to prepare. For example, resources would have been required to perform the test, which would have involved participants from several Army testing and evaluation agencies as well as Army pilots. The use of these resources could translate into substantial costs to the Army. Other documents that Army representatives said they waived because they were unneeded include:

- System Threat Assessment Report, which documents the Army's threat assessment against a specific system. This assessment was waived because the NTH is a training helicopter that has no combat mission.
- Live Fire Test and Evaluation Report, which is provided to Congress to report results of realistic survivability or lethality testing. This report was waived because the NTH is solely a training device with no combat mission.
- Development Test and Evaluation Report, which provides the results of developmental test and evaluation of a system. This evaluation was waived because the NTH is a nondevelopmental item and an FAA-certified aircraft.

The Army experienced delays in obtaining some deviations and waivers because of legal concerns and pressure from officials in functional areas within the acquisition process. For example, the Army requested a deviation from the legal prohibition against allowing contract financing on commercial products.³ It took several months to obtain and did not arrive soon enough for the Army to avoid developing three different options to include in the RFP because of the uncertainty about whether the deviation would be granted before the RFP due date.

One of the NTH competing contractors told us this was an example of the government being out of "sync" with commercial procurement practices by allowing fewer financing options than are normally available in the private sector. An Army representative said failure to provide government financing on commercial procurement such as the NTH could impede firms, especially smaller firms, from bidding on government contracts for commercial products. The impediment would result because firms would have to invest their own funds or borrow large sums to finance production if government financing is not available.

Army officials also identified some program documents as adding little or no value to the NTH buy. In these instances, NTH program office representatives explained that sometimes it was simpler to prepare the requested documents than to obtain waivers because some functional proponents had higher level support than the program manager. For example, an NTH Program Office representative said the office yielded to pressure from the testing community by preparing a Test and Evaluation Master Plan, which when approved said little more than development and operational testing were not necessary because the NTH is a commercial helicopter. The Army hired a contractor to prepare this 64-page plan, which was completed in about a year and cost about \$70,000.

³The Federal Acquisition Streamlining Act, enacted in October 1994, eliminates this prohibition and authorizes government financing under such terms and conditions as are appropriate or customary in the commercial marketplace for commercial items. This includes advance payments up to 15 percent.

In addition to the Test and Evaluation Master Plan, other examples of program documents that added little or no value, according to Army officials, included:

- Human Factors Engineering Report, which identified concerns such as the minimization of crew workload for the NTH. While the program manager was able to eliminate certain sections of the report, he was unable to waive the entire document.
- System MANPRINT Management Plan, which provided optimum man and machine interface for the already designed nondevelopmental item.
- Computer Resources Life Cycle Management Plan, which was a 22-page plan that stated that since the NTH is a commercial, nondevelopmental item, no unique software for operation or support was required.
- Safety and Health Data Sheet, which provided information about safety; radioactive materials; explosives and hazardous materials; munitions; and health hazards, such as acoustical energy, biological and chemical substances, oxygen deficiency, and radiation energy. Although the NTH solicitation specifically required an FAA-certified aircraft, the safety functional proponents ultimately required the Army to prepare the data sheet. Army proponents of the Safety and Health Data Sheet insisted that noise test data be gathered for the NTH. The Program Office, the FAA, and the contractor believed that such data was unnecessary because this was an FAA-certified aircraft and over 4,000 Bell Jet Rangers were flying.

Acquisition Reform May Offer Additional Opportunities

To significantly reduce differences between the Army's and commercial sector's acquisition processes, further reforms—such as those set forth by the Secretary of Defense and Congress—would be required. Specifically, many of the laws, regulations, and other reasons for the extended NTH acquisition process, the numerous participants, and extensive paperwork requirements could be reduced when various DOD initiatives and the recently signed Federal Acquisition Streamlining Act of 1994 are successfully implemented.

DOD's Blueprint for a Commercial Purchasing Environment and Recent Legislative Reforms

In February 1994, the Secretary of Defense told Members of Congress that it was imperative that the United States be able to rapidly obtain commercial and other state-of-the-art products and technology to meet post-Cold War security challenges. He noted, however, that the DOD acquisition process—which is subject to considerable “stove-piping” of functions and massive coordination requirements, in addition to extensive laws, regulations, and oversight requirements—basically impeded DOD's

access to such commercial items. As an example, he stated that, under the current process, DOD was often unable to buy commercial products, even when they were cheaper. He then presented his vision to transform DOD's acquisition process into a commercial purchasing environment. This vision statement was based on recommendations in the executive branch's National Performance Review and the Section 800 Panel report.⁴

Among other things, the Secretary asserted that acquisition laws and regulations must separately define and state a clear preference for commercial items over other nondevelopmental items, and specially designed items. To accomplish this, he contended that commercial acquisitions should be exempt from government-unique laws, regulations, procedures, processes, or practices. He noted that acquisition policies and processes must be structured so that the fewest number of people are involved in a given process and the time required to acquire products and services is substantially reduced.

He further stated that there should be (1) a mandatory exemption from TINA requirements to submit cost or pricing data for most commercial item acquisitions and (2) approval of and authorization of waivers for the DOD pilot programs. The Section 800 Panel report noted that TINA requirements created a barrier for the use of commercial and modified commercial products by DOD. The Panel, in recognition of TINA's adverse impact, drafted an alternative pricing provision. The Secretary requested the TINA exemption as a major step to creating a commercial purchasing environment. Regarding the pilot programs, he noted that, since some time will be needed to revise regulations and train personnel in the new purchasing environment, approval of DOD's pilot programs would "jump start" acquisition reform by allowing the immediate purchase of commercial and commercial-like items using commercial practices.

In October 1994, Congress passed the Federal Acquisition Streamlining Act, which incorporated many of the Secretary's proposals. Through this act, Congress, among other things, sought to encourage the purchase of commercial items in the government and reduce impediments to these purchases. One provision required the FAR to include a list of statutes that are inapplicable to contracts and subcontracts for acquiring commercial items. Several such statutes were identified in the act and included the ones related to

⁴This is DOD's Acquisition Law Advisory Panel's report entitled Streamlining Defense Acquisition Laws, which was convened under Section 800 of the National Defense Authorization Act of 1991.

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- contingent fee certifications,
 - Anti-Kickback Act procedural requirements,
 - Drug-Free Workplace Act requirements,
 - subcontractor direct sales limitations to the United States,
 - suspended or debarred subcontractors identification requirements,
 - procurement integrity certifications, and
 - Clean Air Act certifications.

Such government-unique requirements were found to be inconsistent with normal commercial practice and a driver of increased administrative expenses and paperwork for commercial companies awarded government contracts for commercial items. All of the above requirements were included in the NTH solicitation. At the time of our review, DOD officials informed us that, as part of the regulatory implementation of the Federal Acquisition Streamlining Act of 1994, they have ongoing efforts to develop the lists of inapplicable statutes for commercial procurements.

Additionally, the act includes, among other things, provisions that:

- Establish a clear preference for the use of commercial items over other nondevelopmental items and unique government-designed items (as set forth in the Secretary's vision).
- Require preliminary market research before developing new specifications and before soliciting any bids or proposals in excess of \$100,000. This was done to determine whether agency needs could be met by available commercial items and is a process quite similar to the way the private companies we spoke with make purchases—that is, identifying what is in the market and making tradeoffs instead of using the more independent requirement development process that existed for the NTH buy.

As previously noted, the act also authorizes commercial item payments using commercial terms and conditions when in the best interest of the United States. Under this arrangement, financing payments could be used unless the agency head determines that such payment is inconsistent with terms and conditions in the commercial marketplace or not in the government's interest. As discussed, such a change could have been beneficial in the NTH procurement and would have precluded the time lag and other problems associated with the NTH Program Office's attempt to waive the prohibition on contract financing for commercial items.

Additionally, the act includes certain provisions that are designed to improve the purchasing environment for commercial items. These include

the (1) authorization of DOD pilot programs to test innovative procurement procedures and (2) exemptions to TINA requirements for the submission of cost or pricing data. Regarding the DOD pilot programs, Congress approved special statutory authority for five of the seven acquisition programs originally nominated by DOD. To date, DOD has granted the participating programs waivers from regulations not required by statute, and worked with the programs to develop measurement processes to determine the success of the acquisition approaches made possible by waivers. Regarding TINA requirements on commercial items that are not acquired competitively, the act requires the contracting officer to seek information on prices at which the same or similar items have been sold in the commercial market. If the information is adequate to evaluate price reasonableness, the contracting officer must exempt the procurement from cost and pricing data requirements.

These and other changes appear to be a big step toward reducing the "red tape" and administrative burdens associated with the government's acquisition of commercial items. It should be noted, however, that no one has data on how much such reforms will reduce the cost, time, number of participants, or paperwork required in DOD's acquisition of commercial items. DOD officials, however, have stated that they currently have ongoing efforts to quantify and collect such data. This type of information is key in determining whether adapting commercial practices to procure commercial items will provide significant benefits to DOD. We, therefore, believe that the Army's NTH streamlining effort could be used as a baseline against which further improvements that might result from acquisition reforms could be measured. However, some combat or other missions are only satisfied by unique development efforts (such as the B-2 and F-22). In such cases, the NTH would likely not provide an appropriate baseline.

Agency Comments

In commenting on a draft of this report, DOD stated that it concurred with the report. DOD also agreed that the Federal Acquisition Streamlining Act offers even more opportunity for the use of commercial practices and for improved government procurement of commercial type items. DOD's comments are reprinted in their entirety in appendix III.

Scope and Methodology

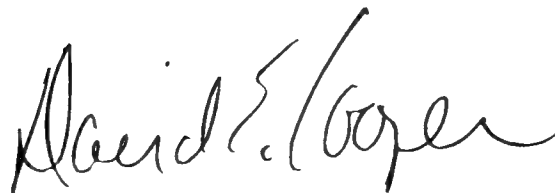
We reviewed the Army's NTH acquisition and related documentation including, but not limited to, various draft and the final RFP, and an Army after action report entitled "New Training Helicopter Acquisition Process." We compared this NTH acquisition to acquisitions of similar commercial

helicopters made by private firms. To accomplish our objectives, we gathered and analyzed applicable data regarding each of the above and interviewed a number of officials within the Army, DOD, and the private sector. These included individuals from: the U.S. Army NTH Product Office at the Army Aviation and Troop Command in St. Louis, Missouri; the Army's Aviation Training Brigade located at Fort Rucker, Alabama; Bell Helicopter, Textron Incorporated, located in Fort Worth, Texas; the Defense Plant Representative's Office located at Bell Helicopter; American Eurocopter Corporation located in Grand Prairie, Texas; Premier Helicopter Company located in Grand Prairie, Texas; Enstrom Helicopter Corporation located in Menominee, Michigan; Grumman Aerospace and Electronics Corporation located at Bethpage, New York; and Petroleum Helicopter, Incorporated, and Keystone Helicopter Corporation—two major private sector helicopter purchasers—located in Lafayette, Louisiana, and Westchester, Pennsylvania, respectively.

In addition, we reviewed (1) the Secretary of Defense's acquisition reform plan entitled "Acquisition Reform: A Mandate for Change," which was presented before the House Committee on Armed Services on February 9, 1994; (2) the Federal Acquisition Streamlining Act of 1994, Public Law 103-355; and (3) various reports and studies relative to commercial practices and the federal government's procurement of helicopters. We conducted our work between February and December 1994 in accordance with generally accepted government auditing standards.

We are sending copies of this report to interested congressional committees. We will make copies available to others upon request. Please contact me on (202) 512-4587 if you have any questions concerning this report. Major contributors to this report are listed in appendix IV.

Sincerely yours,

A handwritten signature in black ink, reading "David E. Cooper". The signature is fluid and cursive, with the first name "David" being the most prominent.

David E. Cooper
Director, Acquisition Policy, Technology,
and Competitiveness Issues

Contents

Letter		1
Appendix I		20
Process for Army	Army's NTH Acquisition	20
NTH Buy and Process	Private Sector Procurement	24
Used by Some Private		
Sector Purchasers of		
Similar Helicopters		
Appendix II		27
Contract Clauses		
Appendix III		29
Comments From the		
Department of		
Defense		
Appendix IV		30
Major Contributors to		
This Report		
Table	Table 1.1: Key Events in the NTH Acquisition	20
Figure	Figure 1: The Army's New Training Helicopter	3

Abbreviations

DOD	Department of Defense
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
NTH	New Training Helicopter
TEUE	Training Effectiveness User Evaluation
TINA	Truth in Negotiation Act
RFP	request for proposals

Process for Army NTH Buy and Process Used by Some Private Sector Purchasers of Similar Helicopters

Army's NTH Acquisition

The Army's NTH acquisition strategy changed over the life of the program. Initially, the Army proposed a lease it called a "turnkey" or Single Contractor Aviation Trainer concept where one contractor would provide aircraft maintenance, support, and conduct the Initial Entry Rotary Wing flight training using contractor instructor pilots. Concerns about the cost of the concept and its potential to adversely impact existing training operations resulted in the Army revising its plan to a lease with an option to buy. The Army received congressional authorization in November 1990 for a 5-year lease of the trainer aircraft. However, Congress repealed this authorization the following year and directed the Army to present a direct buy strategy.

The NTH acquisition extended over about 7 years from the time the need for the NTH was identified in 1986 to initial aircraft delivery in 1993. For the first 4 years, most of the effort was devoted to leasing because procurement funds were not available. Concurrent with finalizing whether to lease or buy, the Army was involved in developing and approving detailed operational and performance requirements for the NTH. As discussed below, this was an iterative process throughout the acquisition cycle that involved numerous participants such as the users, potential contractors, and the buying commands.

Table 1.1 provides an overview of key events during the 7-year acquisition of the NTH. The table is followed by a more detailed discussion of key events of each acquisition phase.

Table 1.1: Key Events in the NTH Acquisition

Year	Phase	Responsible organization ^a	Participants and events
1986	R	Headquarters	Army Vice Chief of Staff directs new training helicopter be acquired.
1987	R	Aviation Center	User representatives meet to discuss requirements for the NTH.
	P	Buying command	Industry interest in NTH solicited via a Commerce Business Daily announcement.
	P	Contractors	Several contractors respond to the Commerce Business Daily announcement.
1988	P	Aviation Center	Communicates with contractors about NTH.
	R	Training Device Program Manager	Tasks contractor to perform an economic analysis of initial entry rotary wing training.
	R, P	Contractors	Meet with congressional representatives about the NTH program.
	N	Aviation Center	Begins purging prior trainer out of inventory.

(continued)

**Appendix I
Process for Army NTH Buy and Process
Used by Some Private Sector Purchasers of
Similar Helicopters**

Year	Phase	Responsible organization^a	Participants and events
1989	R	Headquarters	Briefs House and Senate Armed Services Committees on planned acquisition.
	R	Aviation Center	Provides Training and Doctrine Command with requirement document.
	R	Training Device Program Manager	Completes economic analysis of an integrated system for initial rotary wing training.
	R	Training and Doctrine Command	Approves economic analysis performed by contractor.
	P	Aviation Center	Issues draft request for proposals.
	P	Training Device Program Manager	Briefs Army Aviation Center on lease concept for NTH.
	R	Headquarters	Validates economic analysis performed by contractor.
	R	Training and Doctrine Command	Approves Commercial Training Device Requirement document.
	P	Headquarters	Reviews draft lease language.
1990	R	Headquarters; Training and Doctrine Command	Authorizes acquisition of NTH from a requirements standpoint.
	R	Program Manager for Training Devices	Performs market survey of commercial users.
	N	Headquarters	Army Acquisition Executive directs the NTH to be managed by the Army buying command.
	N	Congress	Authorizes a 5-year lease of the NTH.
1991	N	Training Device Program Manager	Transfers management responsibility to Army buying command.
	S	Buying command	Convenes senior level review board and requests designation of source selection authority.
	S	Headquarters	Army Acquisition Executive appoints source selection authority.
	P	Buying command	Issues draft request for proposals.
	P	Contractors	Respond and comment on draft request for proposals.
	N	Congress	Repeals lease for the NTH.
	N	Headquarters	Army Acquisition Executive directs the NTH be managed by Program Executive Office—Aviation.
	S, P	Program Executive Office—Aviation	Transfers NTH funding and staffing from Army buying command to Program Executive Office—Aviation; issues a revised draft request for proposal to contractors.
	S	Headquarters	Source selection authority appoints the source selection advisory council.
	P	Contractors	Respond and comment on revised draft request for proposal.
	R	Program Executive Office—Aviation	Asks for a revalidation of Commercial Training Device Requirement document.

(continued)

Appendix I
Process for Army NTH Buy and Process
Used by Some Private Sector Purchasers of
Similar Helicopters

Year	Phase	Responsible organization ^a	Participants and events
	R	Training and Doctrine Command	Revalidates Commercial Training Device Requirement document.
1992	S	Program Executive Office—Aviation	First source selection advisory council meeting held at buying command.
	S	Test and Experimentation Command	Conducts Training Effectiveness User Evaluation (TEUE) pretest Fort Rucker, at Fort Rucker.
	P	Aviation Center	Hosts presolicitation conference for potential contractors.
	S	Program Executive Office—Aviation	Source selection plan completed.
	P	Test and Experimentation Command	Attends presolicitation conference at Fort Rucker.
	S	Program Executive Office—Aviation	Second source selection advisory council meeting.
	S	Test and Experimentation Command	Prepares the TEUE test plan.
	P	Program Executive Office—Aviation	Issues final request for proposals and hosts preproposal conference for contractors.
	P	Contractors	Submit proposals.
	S	Aviation Center	Hosts TEUE.
	S	Contractors	Attend TEUE at Fort Rucker.
	S	Program Executive Office—Aviation	Source selection advisory council meetings III through V.
1993	S	Contractors	Submit best and final offers.
	S	Program Executive Office—Aviation	Holds source selection advisory council meetings VI and VII.
	S	Headquarters	NTH selection coordinated with acting Army Acquisition Executive.
	C	Program Executive Office—Aviation	Contract awarded March 30.
	C	Aviation Center	Receives first NTH in October.

^aOrganizations referenced are Army except for Congress and contractors.

Legend for phases

R = Requirements determination
P = Proposal solicitation
S = Source selection
C = Contract award/delivery
N = Not applicable

**Requirements
Determination**

The Army identified a need for a new training helicopter in July 1986 to replace the aging and difficult to maintain helicopter then used for initial rotary wing training. The Army's process for developing operational and performance requirements began with discussions with various user

organizations (such as pilots, maintainers, and trainers). The Army eventually defined its NTH requirements to include

- a turbine-powered engine,
- three seats,
- dual controls,
- 90 knot airspeed, and
- selected crash-worthy features.

In 1989, the Army's training school approved a statement of operational and performance requirements that added additional details on various categories of these requirements such as cockpit environment, navigation and communication capabilities, maintainability, and reliability. In February 1990, the operational and performance requirements were approved and in mid-1990, an Army assembled team visited and surveyed large users of commercial helicopters in the same class as the NTH to obtain information on operating costs and performance.

Proposal Solicitation

In September 1987, the Army solicited interest from industry in the Commerce Business Daily by identifying its basic operational and performance requirements. Subsequently, in February 1989, the Army issued the first draft request for proposal (RFP), which consisted of 330 pages, including a 42-page statement of work, a 16-page system description, as well as referencing 81 separate contract clauses. Between February 1989 and December 1991, the Army issued a number of draft RFPs that consisted of hundreds of pages and requested potential contractors to provide a multitude of information in a variety of categories.

Throughout the acquisition process, the Army received many comments from industry. For example, 144 potential prime contractors and subcontractors commented on its December 1991 draft RFP. Concurrent with issuing the draft RFP, the Army involved a large number of people in its decision-making process. For example, it held a presolicitation conference at Fort Rucker, Alabama, during March 1992. Attendees included 52 industry personnel and at least 19 government personnel representing the Federal Aviation Administration (FAA) and several Army commands responsible for training, testing, and procurement as well as the Army's training school. The final RFP for the procurement was issued on May 1, 1992, and amended in August 1992.

Source Selection Process

The Army's source selection process incorporated procedures to choose a source whose proposal has the highest degree of realism and credibility, and whose performance was expected to best meet government objectives at an affordable price. In November 1991, the Army appointed a source selection authority for the New Training Helicopter (NTH). This individual was responsible for (1) reviewing an advisory council's recommendations; (2) assessing the analyses of the contractors' proposals that were conducted by the source selection evaluation board; and (3) ultimately, making the final source selection decision that was presented to the Army Acquisition Executive. The source selection authority's advisory council included senior military and civilian officials representing several Army organizations. According to an Army official, the evaluation board consisted of about 100 civilian and military officials—including 25 full-time members, 60 part-time members, and 15 consultants.

There were a number of meetings involving numerous participants during the source selection process. The Army held a preproposal conference at the Army's procurement command in June 1992. The conference was attended by at least 25 government personnel representing the FAA, the Assistant Secretary of Defense, and 4 separate Army organizations as well as 32 private industry representatives.

The NTH Source Selection Board evaluated the responding contractors' proposals in six areas: (1) technical, (2) training effectiveness, (3) management, (4) logistics, (5) past performance, and (6) cost. According to the RFP, these areas were weighted as follows:

"Training effectiveness was more important than cost. Cost was more important than logistics, which was more important than management or past performance. Management and past performance were approximately equal."

Contract Award and Delivery

The Army received five proposals. The contract was awarded to Bell in March 1993 and required Bell to deliver 157 TH-67, Bell Jet Ranger helicopters. The basic Bell Jet Ranger is made at a Bell facility in Maribel, Canada, and then flown to a Bell subcontractor facility in Fort Worth, Texas, where the basic helicopter is modified to an NTH. Deliveries of the NTH started in October 1993 and will continue through May 1996.

Private Sector Procurement

We discussed and documented the private sector's process for acquiring helicopters with two large private sector commercial helicopter operators

Appendix I
Process for Army NTH Buy and Process
Used by Some Private Sector Purchasers of
Similar Helicopters

that buy from several different manufacturers. To provide a perspective for discussion, we have arranged the private sector practices into the same categories we used for the NTH.

Requirements
Determination

The purchasers described a typical commercial helicopter procurement starting with a determination of the customers' requirements for a helicopter.¹ According to the purchasers, this includes identifying such characteristics as the aircraft's size, speed, and range. They said that their customer requirements are typically limited to what is available in the commercial marketplace but can include some modifications. According to these purchasers, this information is generally readily available and this process can often be completed within hours or days. They further stated that their customers usually have a couple of critical requirements and that these requirements drive the process.

Proposal Solicitation

The private purchasers we talked with stated that their proposals for buys of about 10 aircraft could be up to 4 pages long, with the whole acquisition process being completed in about 3 months. This includes the time from when a customer identifies a need for an aircraft to its delivery.

Source Selection

After evaluating the responses to proposals and discussing needs and what is commercially available with the purchaser, the customer makes a selection. Generally, the customer decides on a helicopter that meets most but not all of the requirements. This type of decision is made based on a cost/benefit analysis that may show the additional capability is needed only a small percent of the time. In such a case, the purchaser may recommend that the customer utilize an alternative to meet the additional capability as a cost-effective solution.

Contract Award and
Delivery

Once the customer has made his decision, the purchaser will then lease or buy the selected helicopter from a manufacturer based on cost comparisons. We were told that, in total, only five to seven key purchaser representatives were involved in the contract award decision.

The purchasers told us that they generally buy an unmodified aircraft. They said that it is more cost-effective to make any modifications for their

¹This process does not include the time it took the customer to develop their requirements and obtain funding for the aircraft. The private purchasers did not know what occurred prior to their customers coming to them.

Appendix I
Process for Army NTH Buy and Process
Used by Some Private Sector Purchasers of
Similar Helicopters

customer rather than having the manufacturer make modifications. They further said that the manufacturer's delivery time varies depending on what aircraft are in their inventory. For example, one purchaser noted that it took about 3 to 8 weeks from the time of order to receipt of an unmodified aircraft. Modifications would lengthen this time; however, both purchasers noted that from the time of order to final delivery was about 3 months.

Contract Clauses

1. Contracting Officer's Representative
2. Statutory Prohibitions on Compensation to Former Department of Defense Employees
3. Special Prohibition on Employment
4. Termination—Commercial Items
5. Invoice and Payment—Commercial Items
6. Changes—Commercial Items
7. Patents and Copyright Indemnification—Commercial Items
8. Inspection and Acceptance—Commercial Items
9. Title and Risk of Loss—Commercial Items
10. Price Reduction for Defective Cost or Pricing Data—Contract Modifications—Commercial Items
11. Audit of Contract Modifications—Commercial Items
12. Technical Data and Computer Software—Commercial Items
13. Technical Data and Computer Software Withholding of Payments—Commercial Items
14. Certification of Technical Data and Computer Software Conformity—Commercial Items
15. Clauses to be Included in Contracts with Subcontractors and Suppliers—Commercial Items
16. Exercise of Option to Fulfill Foreign Military Sales Commitments
17. Small Business and Small Disadvantaged Business Subcontracting Plan (DOD Contracts)
18. Buy American Act and Balance of Payments Program
19. Qualifying Country Sources as Subcontractors
20. Preference for Certain Domestic Commodities
21. Preference for Domestic Specialty Metals
22. Preference for Domestic Hand or Measuring Tools
23. Ground and Flight Risk
24. Accident Reporting and Investigation Involving Aircraft, Missiles, and Space Launch Vehicles
25. Certification of Claims and Requests for Adjustment of Relief
26. Certification of Indirect Costs
27. Pricing of Contract Modifications
28. Officials Not to Benefit
29. Gratuities
30. Covenant Against Contingent Fees
31. Restrictions on Subcontractors Sales to the Government
32. Anti-Kickback Procedures
33. Price or Fee Adjustment for Illegal or Improper Activity
34. Limitation on Payments to Influence Certain Federal Transactions
35. Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment

36. Examination of Records by Comptroller General
37. Order of Precedence
38. Utilization of Small Business Concerns and Small Disadvantaged Business Concerns
39. Small Business and Small Disadvantaged Business Subcontracting Plan
40. Utilization of Women-Owned Small Businesses
41. Liquidated Damages—Small Business Subcontracting Plan
42. Utilization of Labor Surplus Area Concerns
43. Labor Surplus Area Subcontracting Program
44. Notice to the Government of Labor Disputes
45. Walsh-Healey Public Contracts Act
46. Equal Opportunity
47. Equal Opportunity Preaward Clearance of Subcontracts
48. Affirmative Action for Special Disabled and Vietnam Era Veterans
49. Affirmative Action for Handicapped Workers
50. Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era
51. Clean Air and Water
52. Drug-Free Workplace
53. Duty-Free Entry
54. Restriction on Certain Foreign Purchases
55. Federal, State, and Local Taxes
56. Progress Payments
57. Interest
58. Assignment of Claims
59. Disputes
60. Protection of Government Building, Equipment, and Vegetation
61. Limitation of Liability—High Value Items
62. Limitation of Liability—Services
63. Commercial Bill of Lading Notations
64. Limitation of Price and Contractor Obligations

Comments From the Department of Defense



ACQUISITION AND
TECHNOLOGY

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FEB 14 1995

Mr. Henry L. Hinton, Jr.
Assistant Comptroller General
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U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Hinton:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "ACQUISITION REFORM: Comparison of Army's Commercial Helicopter Buy and Private Sector Buys," dated January 13, 1995 (GAO Code 705048/OSD Case 9833). The DoD concurs with the draft report.

The DoD agrees that the Army streamlined its acquisition process and used more commercial type practices for the New Training Helicopter (NTH). The Department recognizes that the recently signed Federal Acquisition Streamlining Act (FASA) of 1994, Public Law 103-355, when fully implemented, could have allowed the Army to make changes to the acquisition process.

Several technical changes were separately provided to the GAO staff. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

George R. Schneider
Director
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